

Froedtert Memorial Lutheran Hospital Cancer Center

Day Hospital Chemotherapy Unit Simulation


Context Diagram

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Simulation Modeling Process Map

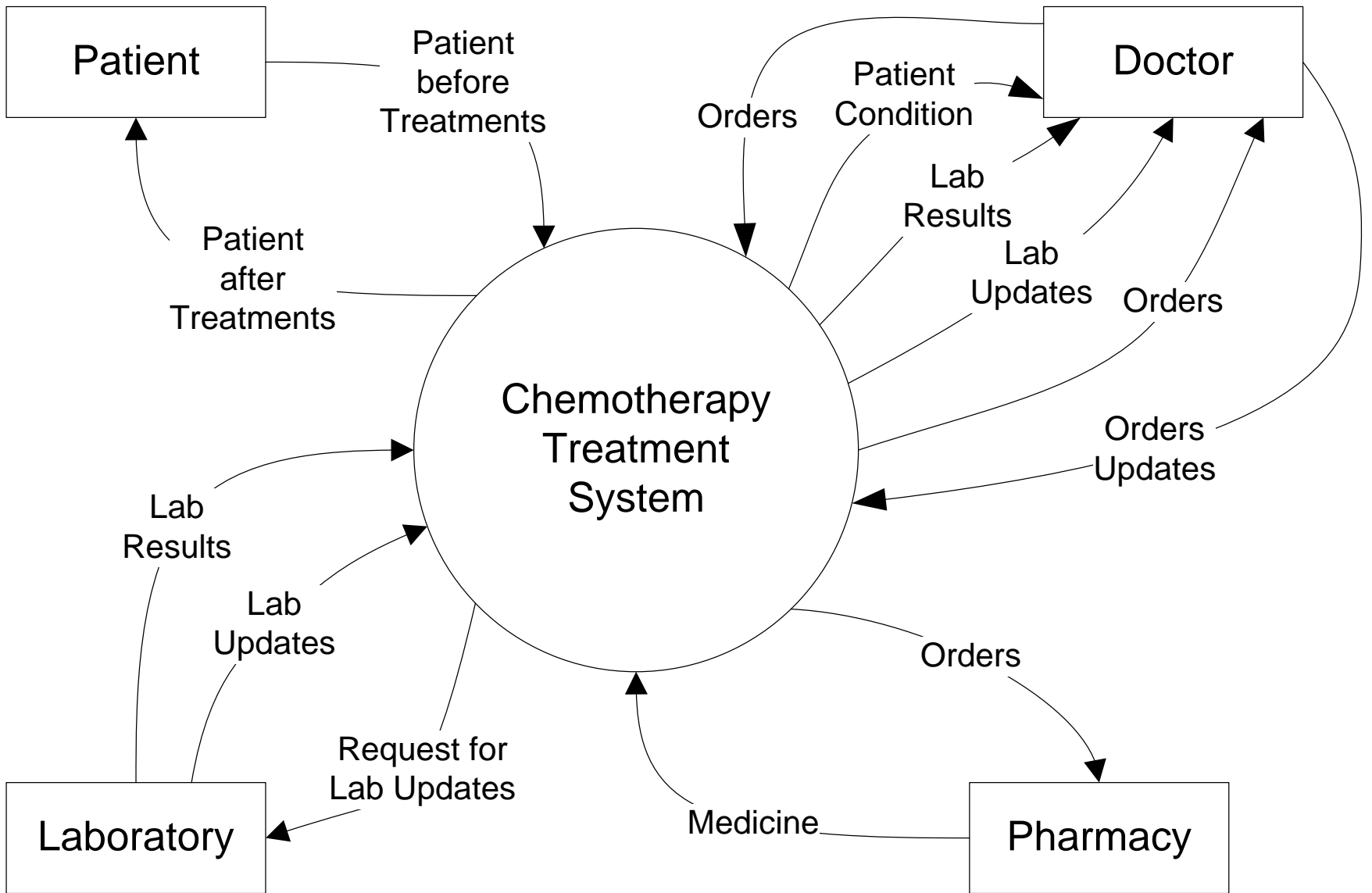
1. Project Overview: Project goal and general approach.
2. System Description: Text narrative derived from initial interviews.
3. **Context Diagram: Scope and boundaries of model.**
4. Entity Relationship Diagram: Interactions between system elements.
5. Entity Flow Diagram: Movement of patients and materials.
6. State Transition Diagrams: Transitions between system wait states.
7. Process Flow Diagrams: Decisions controlling system behavior.
8. Causal Loop Diagram: System cause and effect relationships.
9. IBIS Analysis: Description of “fuzzy” decisions.
10. Simulation Model: Patient movement and resource utilization.



You are here

Context Diagram

- Having prepared a system description outlining the main elements of the chemotherapy treatment system, the next step in constructing the as-is simulation model is to define the *scope* and *boundaries* of the system.
- The *context diagram* shows the elements of the overall system that will be included in the simulation...
- ...And also those elements that will not be explicitly modeled.
- The context diagram also shows the elements of the system that *flow* into and out of the system from external elements called *terminators*.
- Flows can include physical elements (patients, medicines), data flows (orders, lab results).



Physical flows:

- Patients
- Medicine

Data flows:

- Orders – Defined in the System Description
- Lab Results – Defined in System Description
- Lab Updates – Defined in System Description
- Orders Updates – Changes in the Orders generated by the Doctor based on Patient Condition, Lab Results, and Lab Updates
- Request for Lab Updates – Request for lab updates generated by the Chair Nurse based on Patient Condition, Lab Results, and previous Lab Updates.
- Patient Condition – Patient vital signs and visual assessment by Chair Nurse of patient's response to treatment.